USN ☐☐☐☐☐☐☐☐☐☐ **17CS52**

Fifth Semester B.E. Degree Examination, Aug./Sept.2020
Computer Networks

Time: 3 hrs. Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1 a. Compare client-server and peer-to-peer architecture. **(06 Marks)**
b. What are the different types of transport services provided by the internet? **(08 Marks)**
c. With a general format, explain the HTTP Request and HTTP Response messages. **(06 Marks)**

OR

2 a. Explain FTP commands and replies. **(08 Marks)**
b. What are the services provided by DNS? **(04 Marks)**
c. Write a short note on :
   i) Web caching
   ii) SMTP. **(08 Marks)**

Module-2

3 a. Explain UDP segment structure. **(06 Marks)**
b. With the help of FSM, describe the sender side and receiver side of rdt 2.0. **(08 Marks)**
c. Explain Selective Repeat Protocol. **(06 Marks)**

OR

4 a. With a neat diagram, explain TCP segment structure and its fields. **(08 Marks)**
b. Explain the way handshake and closing a TCP connection. **(08 Marks)**
c. Define the following :
   i) Multiplexing
   ii) Demultiplexing
   iii) TCP
   iv) UDP. **(04 Marks)**

Module-3

5 a. List and explain three switching techniques with a neat diagram. **(10 Marks)**
b. With the help of FSM, describe the sender side and receiver side of rdt 2.0. **(10 Marks)**

OR

6 a. Write the algorithm for the following :
   i) Link–state
   ii) Distance vector. **(08 Marks)**
b. Write a short note on :
   i) Broadcast routing
   ii) Multicast routing. **(12 Marks)**

Module-4

7 a. Explain 3G system architecture. **(08 Marks)**
   b. Explain the two different routing approaches to mobile node. **(12 Marks)**

OR

8 a. Define handoff. List the steps involved when a base station does decide to handoff a mobile user. **(10 Marks)**
   b. Write a short note on :
       i)   Agent discovery in mobile IP
       ii) Registration with the home agent in mobile IP. **(10 Marks)**

Module-5

9 a. List and explain the types of multimedia networking application. **(10 Marks)**
   b. Briefly explain the following :
       i)   RTP
       ii) SIP. **(10 Marks)**

OR

10 Write a short note on:
    a. FIFO scheduling mechanism
    b. Priority queueing scheduling mechanism
    c. Round robin and weighted fair queuing scheduling mechanism. **(20 Marks)**

* * * * *